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EXAMINER

SY, MARIANO ONG

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/992,455
Filing Date: November 26, 2001
Appellant(s): MOBLEY ET AL.

Attorney Douglas A. Yerkeson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 9, 2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1-15 and 21-27 are believed to be separately patentable; claims 1-3, 8, and 10 are grouped together; claims 5 and 6 are grouped together; claims 21-24 and 27 are grouped together; and the remaining claims are grouped separately.

(8) *Claims Appealed*

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The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,269,388	Reichow et al.	12-1993
5,330,064	Hall	07-1994
3,880,394	Wisecarver	04-1975
3,705,438	Stosberg et al.	12-1972
5,310,482	Sather	05-1994

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 1-4, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reichow et al. (U.S. Patent Number 5,269,388) in view of Hall (U.S. Patent Number 5,330,064).

Re-claims 1-3, 8 and 10 Reichow et al. discloses, as shown in fig. 1-2, a patient support apparatus comprising: a bed frame 16, a patient support 12 coupled to the bed frame, a plurality of casters 45, and a plurality of caster mounting tubes, each mounting tubes including a plurality of external side walls surrounding an opening, wherein each caster mounting tube is coupled to the bed frame.

However Reichow et al. fail to disclose the plurality of mounting tubes has a rectangular outer cross-sectional shape defined by four external side walls wherein each mounting tube is coupled to the base frame by welds located at opposite ends of the external side wall.

Hall teaches, as shown in fig. 1-2, the use of a plurality of casters 50 on a support frame each having a sleeve 54, a plurality of rectangular caster mounting tubes 40, 44, each mounting tube including a plurality of external side walls surrounding an opening, each external side walls having an interior surface facing inwardly toward the opening, the interior surface being configured to receive in abutting relationship with the sleeve of the caster, and the mounting tube being connected to base frame by welds disclosed in col. 4, lines 55-57 and see "239" in fig. 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the caster support structure of Reichow et al. to include a

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rectangular sleeve and caster mount tube welded to the base frame, as taught by Hall see col. 3 line 1, in order to improve the strength of the support, i.e. caster.

Re-claim 4 Reichow et al., as shown in fig. 1-2, the external side wall abutting the base frame, but fails to show the base frame is formed to include a hole aligned to a hole in the external side wall abutting the base frame and both holes are located between the welds.

Hall teaches, as shown in fig. 1-2, a first external side wall attached to the base frame by welding or riveting as disclosed in col. 4, lines 55-57. Hall discloses the limitation directed to the holes in the claim. The examiner takes Official Notice that it is old and well known to use rivets and welding together to better align and secure the two parts of a device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used rivets and welds to secure the mounting tube and base frame into the apparatus of Reichow et al., in view of the teaching of Hall in order to more securely attach the mounting tube to the base frame so as to better support the weight of the apparatus.

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reichow et al. in view of Hall as applied to claim 1 above, and further in view of Wisecarver (U.S. Patent Number 3,880,394) and Stosberg et al. (U.S. patent Number 3,705,438).

Re-claims 5 and 6 Reichow et al. as modified fail to disclose wherein the sleeve of the caster has a cylindrical shape and the plurality of caster mounting tubes each

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include interior partially cylindrical concave wall sections to receive the cylindrical sleeve and also includes a corner notch located between concave wall sections.

Wisecarver teaches, as shown in fig. 1-3, the use of a square mounting tube 1 and bushing 6 of cylindrical interior fixed in the square mounting tube.

Stosberg et al. teaches, as shown in fig. 1, a caster sleeve 16 having a cylindrical shape.

One skill in the art would have modify the square mounting tube with a square interior wall of Hall to an interior cylindrical wall to receive a cylindrical sleeve, in view of the teachings of Wisecarver and Stosberg et al., by using a cylindrical bushing fixed to the square interior wall of square tubing. The examiner takes Official Notice that it is old and well known of using a square tubing with a thick wall by cutting a cylindrical cross-section through the square interior wall to receiving a cylindrical sleeve of a caster, is a matter of design choice that have the same intended function of sliding freely and large bearing areas between the mounting tube and the sleeve, depending upon cost and availability of material during manufacturing.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reichow et al. in view of Hall and Stosber et al.

Re-claim 7 Reichow et al. discloses, as shown in fig. 1-2, a patient support apparatus comprising: a bed frame 16, a patient support 12 coupled to the bed frame, a plurality of casters 45, and a plurality of caster mounting tubes, each mounting tubes

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including a plurality of external side walls surrounding an opening, wherein each caster mounting tube is coupled to the bed frame.

However Reichow et al. fail to disclose the plurality of mounting tubes has a rectangular outer cross-sectional shape defined by four external side walls wherein each mounting tube is coupled to the base frame by welds located at opposite ends of the external side wall and caster mounting tubes each include an opening to receive a set screw.

Hall teaches, as shown in fig. 1-2, the use of a plurality of casters 50 having a sleeve 54, a plurality of square mounting tubes 44 including a first external side wall attached to the base frame by welding or riveting as disclosed in col. 4, lines 55-57. Hall discloses the limitation directed to the holes in the claim. The examiner takes Official Notice that it is old and well known to use rivets and welding together to better align and secure the two parts of a device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used rivets and welds to secure the mounting tube and base frame into the apparatus of Reichow et al., in view of the teaching of Hall in order to more securely attach the mounting tube to the base frame so as to better support the weight of the apparatus.

Stosberg et al. teaches, as shown in fig. 1, a caster mounting tube 24 includes an opening to receive a set screw 25.

It would have been obvious to one of ordinary skill in the art to have merely utilized the known set screw into the apparatus of Reichow et al., in view of the teaching

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of Stosberg et al., in order to orient the caster with respect to the mounting tube in position and avoid the caster from falling off.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reichow et al. in view of Hall as applied to claim 1 above, and further in view Stosberg et al. (U.S. patent Number 3,705,438).

Reichow et al. as modified fail to disclose wherein the sleeve of each caster has a cylindrical shape.

It would have been obvious to one of ordinary skill in the art to have utilize a sleeve of a caster that has a cylindrical shape, in view of the teaching of Stosberg et al., since it is within the general skill in the art to make a change in the form or shape on the basis of its suitability for intended use as a matter of obvious design choice. In re Dailey, 149 USPQ47 (CCPA 1976).

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall in view of Wisecarver and in view of Stosberg et al.

Re-claim 12 Hall discloses, as shown in fig. 1-2, a method for attaching a caster 50 having a tubular sleeve to a base frame, the method comprising the steps of: providing a caster having a sleeve 54, a square mounting tube 44, and a bed frame 28; placing a first side wall of the mounting tube against the base frame; welding the mounting tube to the base frame at opposite ends of the first side wall, see col. 4, lines 55-57; installing the sleeve of the caster into interior opening of the mounting tube.

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Hall was silent to disclose a base frame of a bed. The examiner takes Official Notice that beds with base frame having casters are old and well known.

It would have been obvious to one of ordinary skill in the art to use the base frame of Hall to support a bed in order to increase the mobility of the bed.

Hall fails to disclose forming an interior opening of the mounting tube having a round cross-sectional shape to receive the cylindrical sleeve of the caster; and forming an opening in the mounting tube to receive a set screw to orient the caster.

Wisecarver teaches, as shown in fig. 1-3, the use of a square mounting tube 1 and bushing 6 of cylindrical interior fixed in the square mounting tube.

Stosberg et al. teaches, as shown in fig. 1, a caster sleeve 16 having a cylindrical shape and a caster mounting tube 24 includes an opening to receive a set screw 25.

One skill in the art would have modify the square mounting tube with a square interior wall of Hall to an interior cylindrical wall to receive a cylindrical sleeve, in view of the teachings of Wisecarver and Stosberg et al., by using a cylindrical bushing fixed to the square interior wall of square tubing. The examiner takes Official Notice that it is old and well known of using a square tubing with a thick wall by cutting a cylindrical cross-section through the square interior wall to receiving a cylindrical sleeve of a caster, is a matter of design choice that have the same intended function of sliding freely and large bearing areas between the mounting tube and the sleeve, depending upon cost and availability of material during manufacturing and in order to orient the caster with respect to the mounting tube in position and avoid the caster from falling off.

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(11) Response to Argument

A. Examiner has withdrawn the rejections under 35 U.S.C. 112, second paragraph on claims 21-27. Claims 21-27 are allowed.

B. Examiner maintains claims 1-4, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reichow et al. in view of Hall is proper.

Claim 1, Appellant argued (page 8, last line to page 9, lines 1-2) "Neither Reichow nor Hall disclose, teach or suggest a caster mounting tube including an interior surface configured to receive in abutting relationship the sleeve of a caster".

Hall disclosed, as shown in fig. 2, a direct contact between rectangular mounting tubes 40,44 and caster sleeve 54. The teaching of Hall is merely used for the known caster support structure.

Claim 4, Appellant fails to argue the Examiner takes Official Notice that it is old and well known to use rivets and welding together to better align and secure two part parts of a device; in fact it is old and well known as disclosed by Sather U.S. Patent Number 5,310,482 (col. 7, lines 9-14). It is well known in joint and connection arts between mating parts to use the combination of welding and fasteners such as rivets or bolts as disclosed by Sather. Claim 4 disclosed a hole on both the first external side wall and the base frame failed to disclose the function of those holes. It would have been obvious to one of ordinary skill in the art to have utilized the combination of welding and fasteners such as rivets or bolts, wherein both have holes, into the apparatus of

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Reichow in order to securely attach the mounting tube to the base frame depending upon the load on the frame.

C. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reichow et al. in view of Hall as applied to claim 1 above, and further in view of Wisecarver and Stosberg et al. is proper.

Claims 5 and 6, Appellant argued that the reference used must be either be in the field of Applicant's endeavor, or if not, then reasonably pertinent to the particular problem with which the inventor was concerned. Stosberg teaches the use of a caster with a caster sleeve 16 having a cylindrical shape. Wisecarver is merely used for the teaching of a well known joint and connection arts between sliding mating parts, square tube 1 with sleeve 6 and rod 7, with same intended function of sliding freely between the cylindrical sleeve of the caster and the mounting tube. The prior art structure is capable of performing the same intended use of sliding freely between the mounting tube and the sleeve of the caster. It would have been held to be within the general skill in the art to make a change in form or shape of the sleeve of the caster of Hall to a cylindrical shape, as taught by Wisecarver, on the basis of its suitability for the intended use as a matter of obvious design choice. In re Dailey, 149 USPQ47 (CCPA 1976).

It is old and well known for selecting a square tubing with a thick wall, that is readily available material at the time of manufacturing, by cutting a cylindrical cross-section through the square interior wall to receiving a cylindrical sleeve of a caster, is a matter of design choice or alternate equivalent that have the same intended function of

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sliding freely between the mounting tube and the sleeve, depending upon quantity to be made, availability of material at the time of production, and to save cost. Since it has been held to be within the general skill in the art to make a change in form or shape on the basis of its suitability for the intended use as a matter of design choice.

D. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reichow et al. in view of Hall and Stosber et al.

Claim 7, Appellant argued that Hall (col. 4, lines 55-57) suggests the attachment of an exterior support member 44 to vertical face 38 of frame 24, such as by "welding, rivets, or spot welding", this clearly does not suggest a set screw received within an opening formed within the caster mounting tube alone, or in combination with welds adjacent the first external side wall.

Claim 7, lines 7-8 recites "the mounting tube being connected to the base frame by welds located adjacent the first external side wall". Hall teaches (col. 4, lines 55-57, fig. 5) the attachment of an exterior support member 44 to vertical face 38 of frame 24, such as by "welding, rivets, or spot welding", this clearly reads on the claim language.

Claim 7, lines 9-11 recites "a plurality of set screws configured to orient the plurality of casters and wherein the caster mounting tubes are each formed to include an opening configured to receive one of the set screws". Stosberg et al. teaches, as shown in fig. 1, a caster mounting tube 24 includes an opening to receive a set screw 25. It would have been obvious to one of ordinary skill in the art to have merely utilized the known set screw into the apparatus of Reichow et al., in view of the teaching of

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Stosberg et al., in order to orient the caster with respect to the mounting tube in position and avoid the caster from falling off.

E. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reichow et al. in view of Hall as applied to claim 1 above, and further in view Stosberg et al.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The prior art structure is capable of performing the same intended use of sliding freely between the mounting tube and the sleeve of the caster. It would have been obvious to one of ordinary skill in the art to utilize a known cylindrical shape of the sleeve on the caster of Reichow et al. as modified, as taught by Stosberg. To make a change in form or shape on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Dailey*, 149 USPQ47 (CCPA 1976).

F. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall in view of Wisecarver and in view of Stosberg et al.

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Claim 12, Appellant argued that Wisecarver is non-analogous art and Examiner's conclusory statement that "it is old and well known of using a square tubing with a thick wall by cutting a cylindrical cross-section through the square interior to receiving a cylindrical sleeve of a caster" does not satisfy the Patent and Trademark Office burden as clearly defined by the Federal Circuit.

Wisecarver is merely used for the teaching of a well known joint and connection arts between sliding mating parts, square tube 1 with sleeve 6 and rod 7, with same intended function of sliding freely between the cylindrical sleeve of the caster and the mounting tube. The prior art structure is capable of performing the same intended use of sliding freely between the mounting tube and the sleeve of the caster. It would have been held to be within the general skill in the art to make a change in form or shape of the sleeve of the caster of Hall to a cylindrical shape, as taught by Wisecarver, on the basis of its suitability for the intended use as a matter of obvious design choice. In re Dailey, 149 USPQ47 (CCPA 1976).

It is old and well known for selecting a square tubing with a thick wall, that is readily available material at the time of manufacturing, by cutting a cylindrical cross-section through the square interior wall to receiving a cylindrical sleeve of a caster, is a matter of design choice or alternate equivalent that have the same intended function of sliding freely between the mounting tube and the sleeve, depending upon quantity to be made, availability of material at the time of production, and to save cost. Since it has been held to be within the general skill in the art to make a change in form or shape on the basis of its suitability for the intended use as a matter of design choice.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

M. Sy
September 23, 2004

Conferees


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